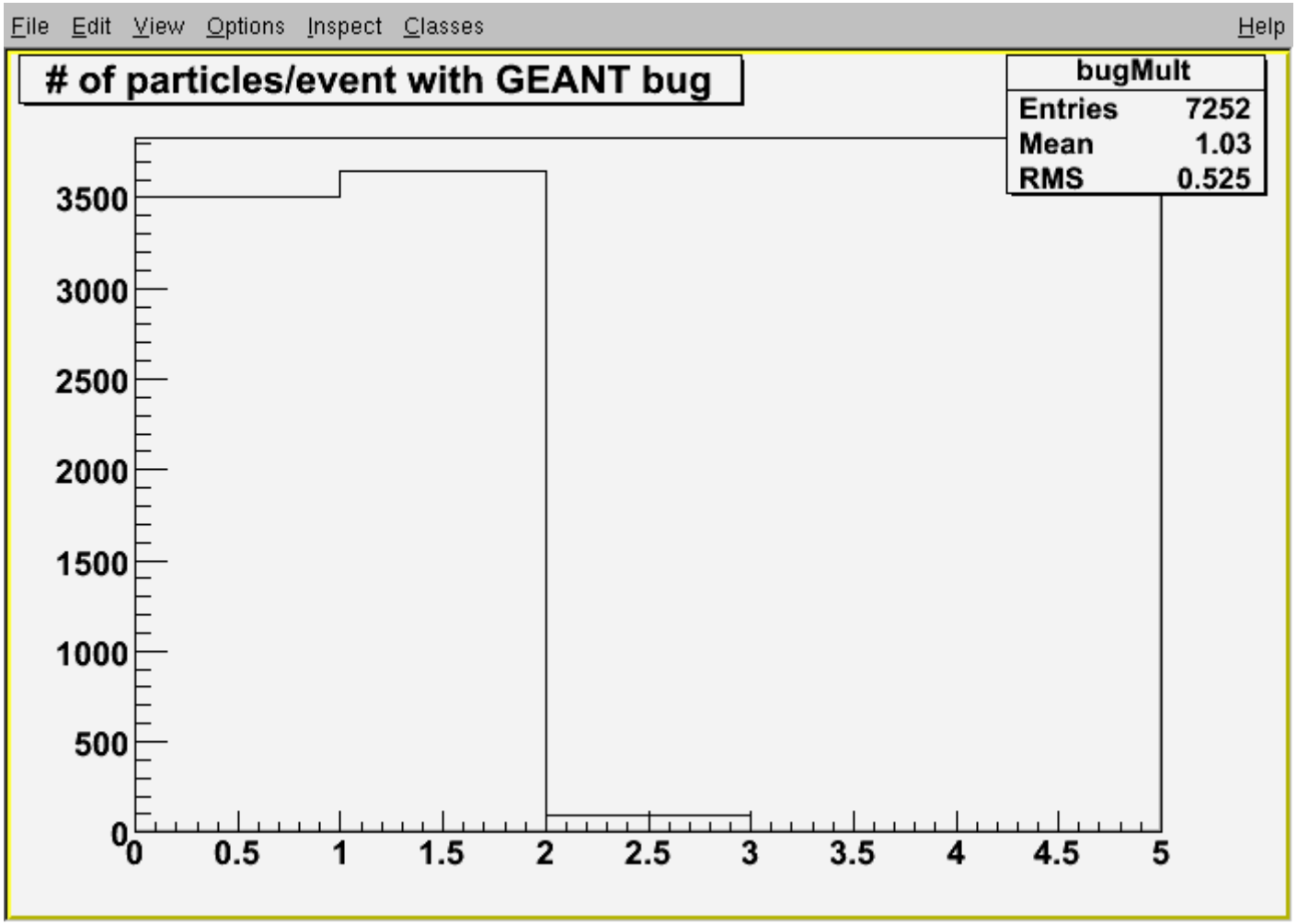
Effect of GEANT Bug on High-MET QCD events

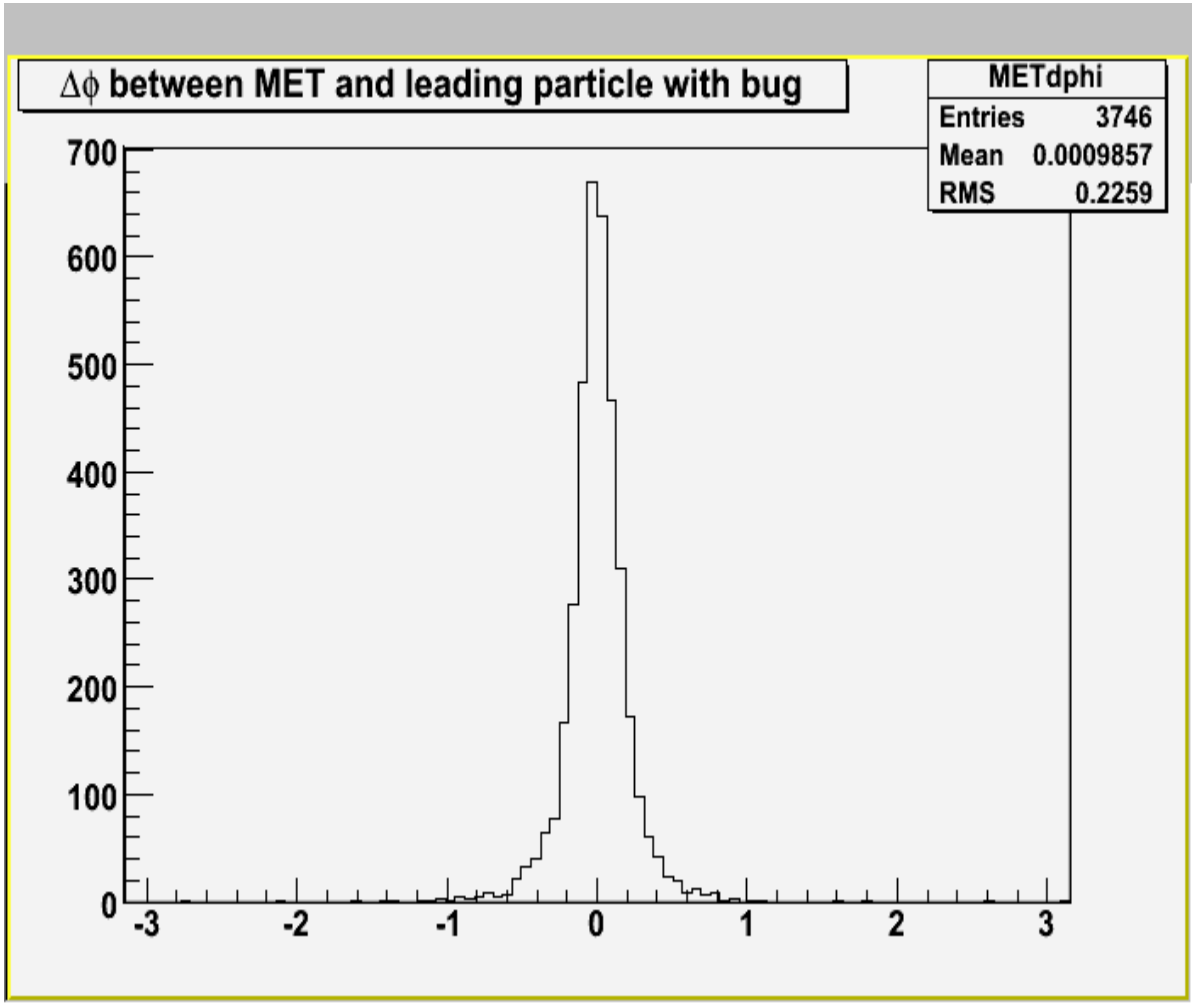
Over half of my selected events have at least 1 track with Geant Bug



Geant Bug Particle vs. MET

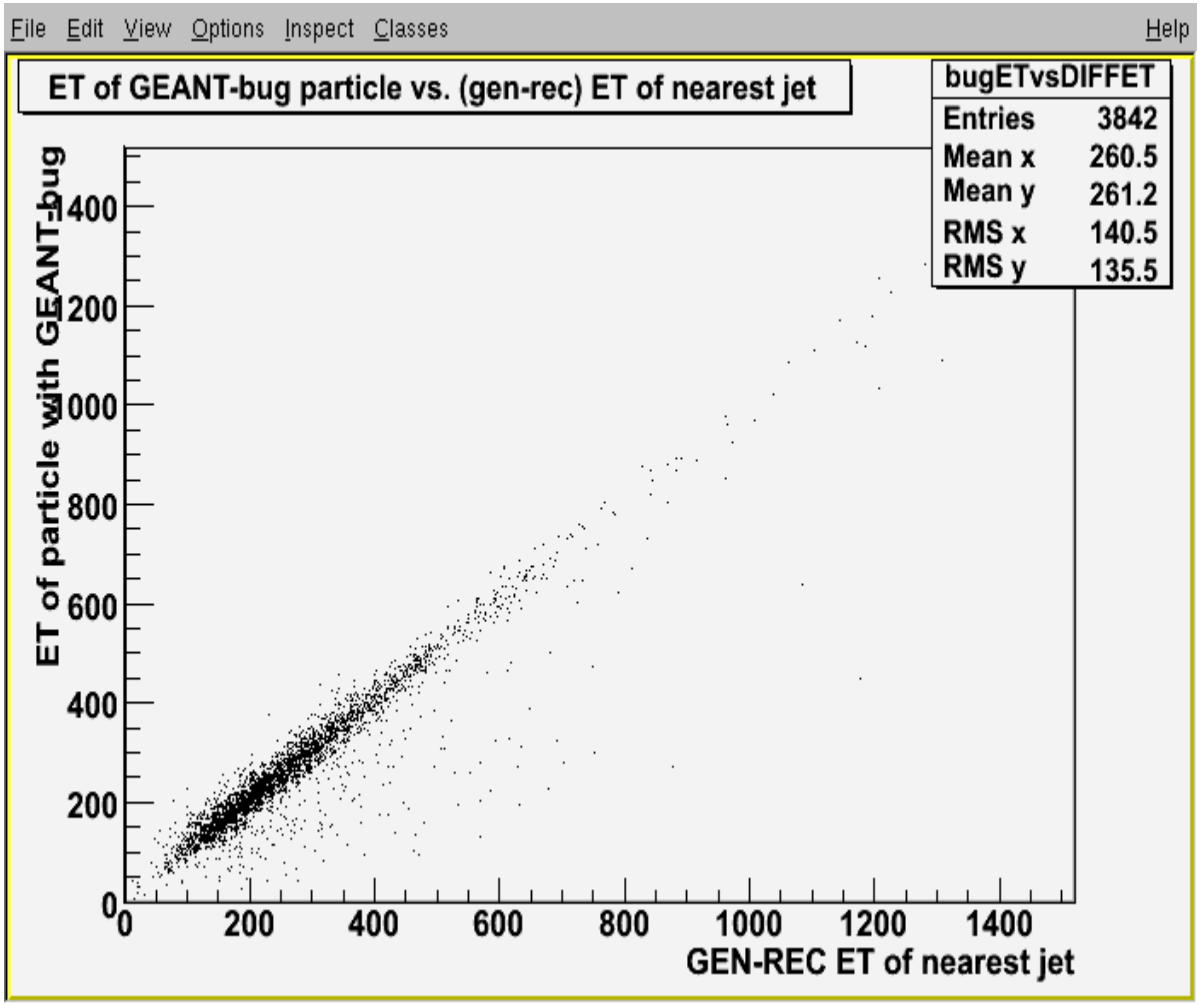
Get genParticle matched to bad Track

Plot deltaPhi(genParticle, MET)



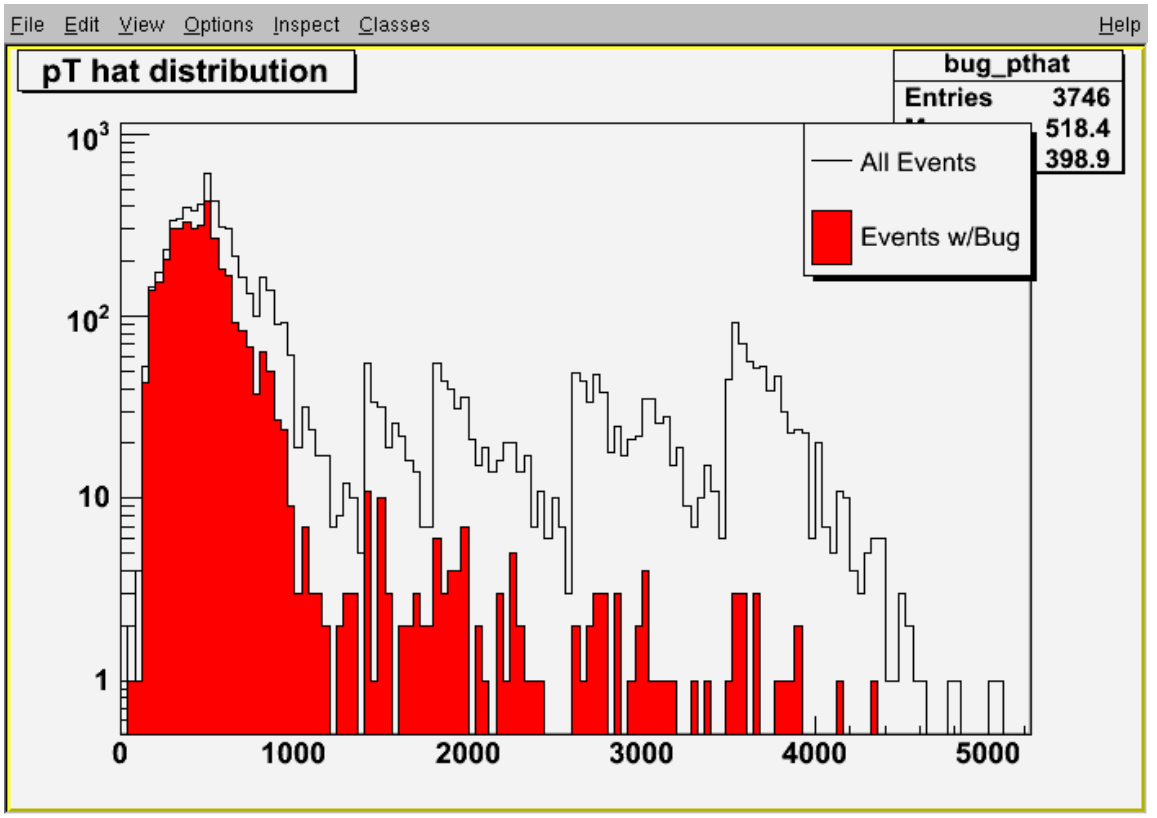
GenParticle ET vs. DET(gen-rec jet)

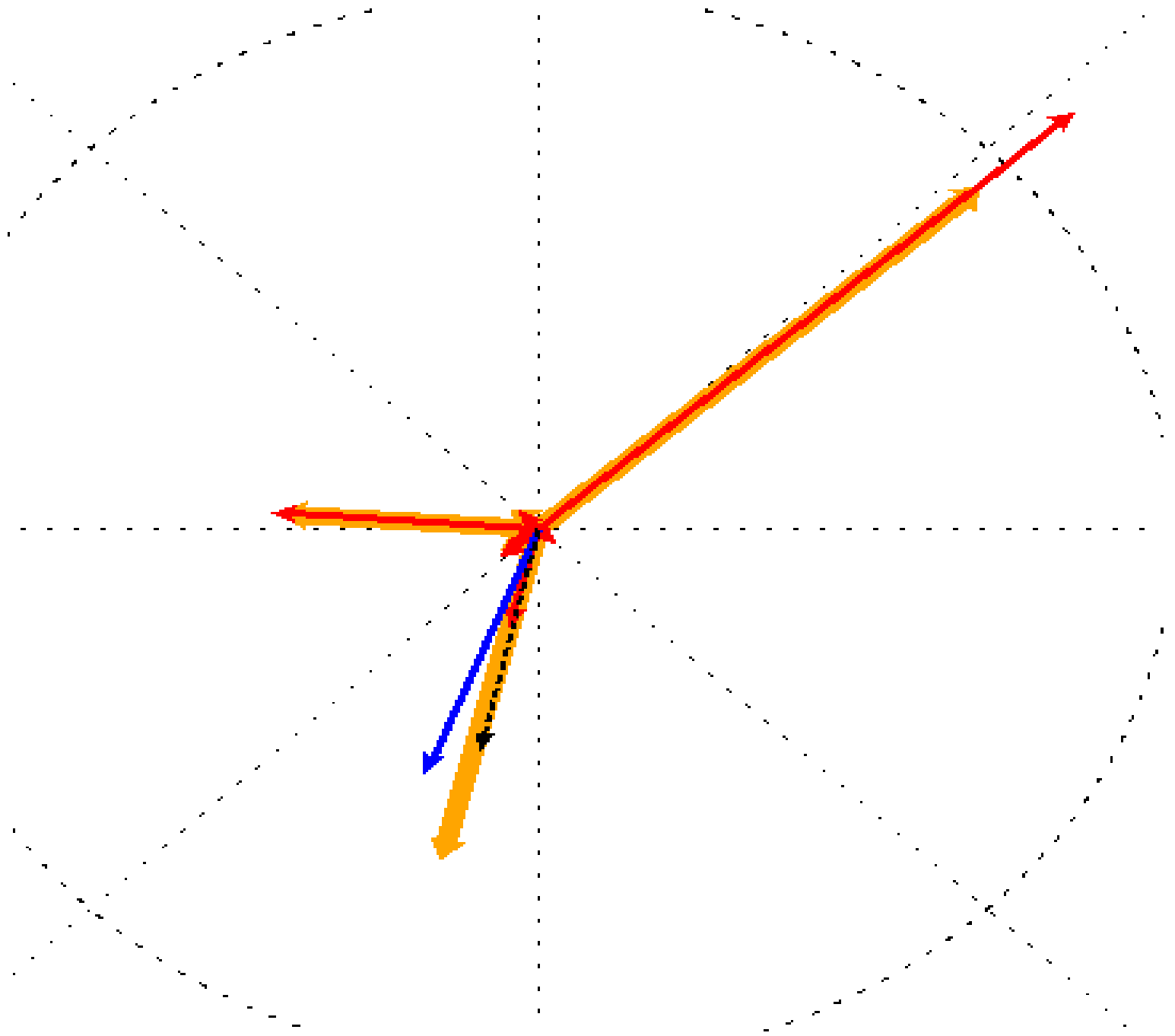
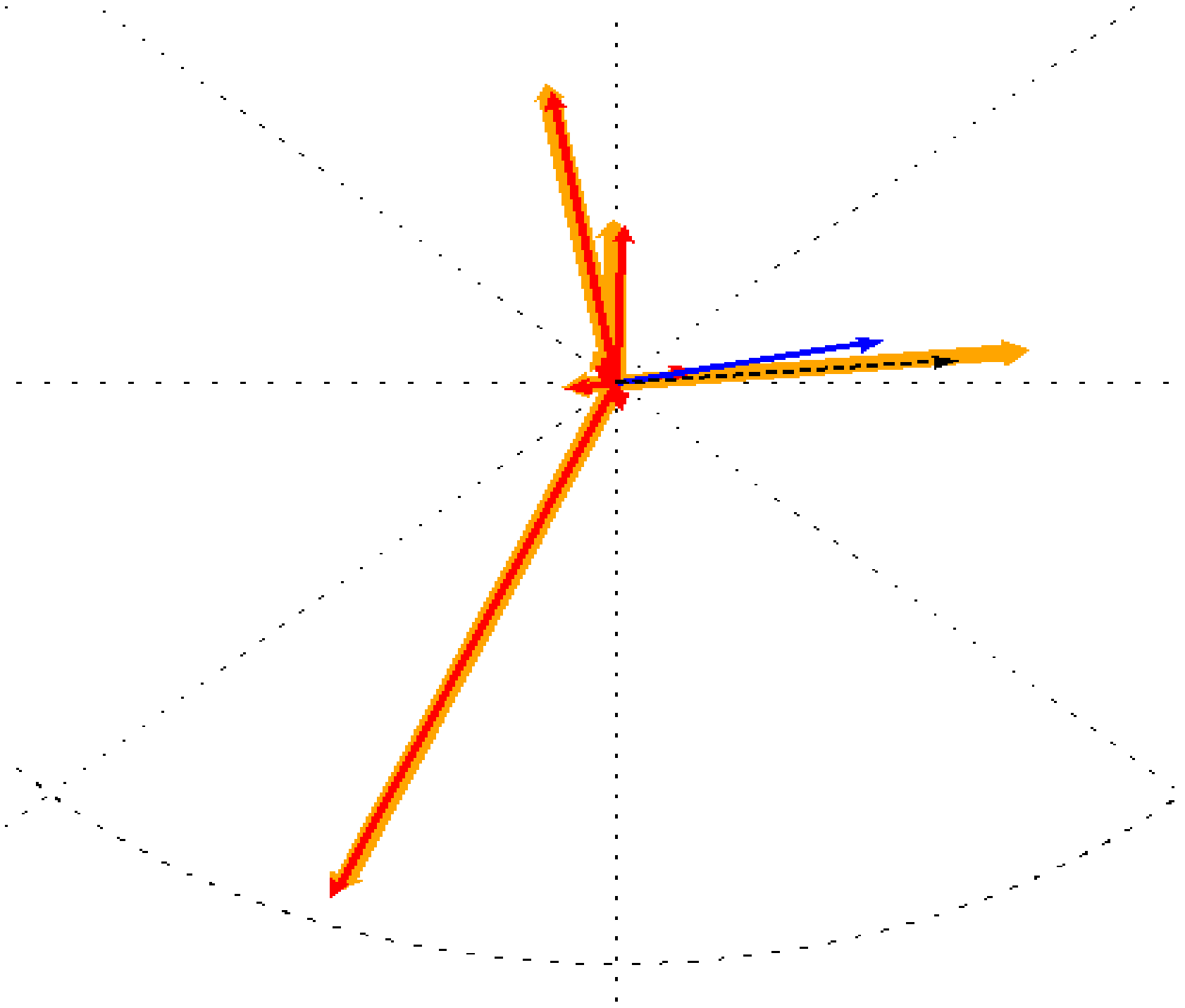
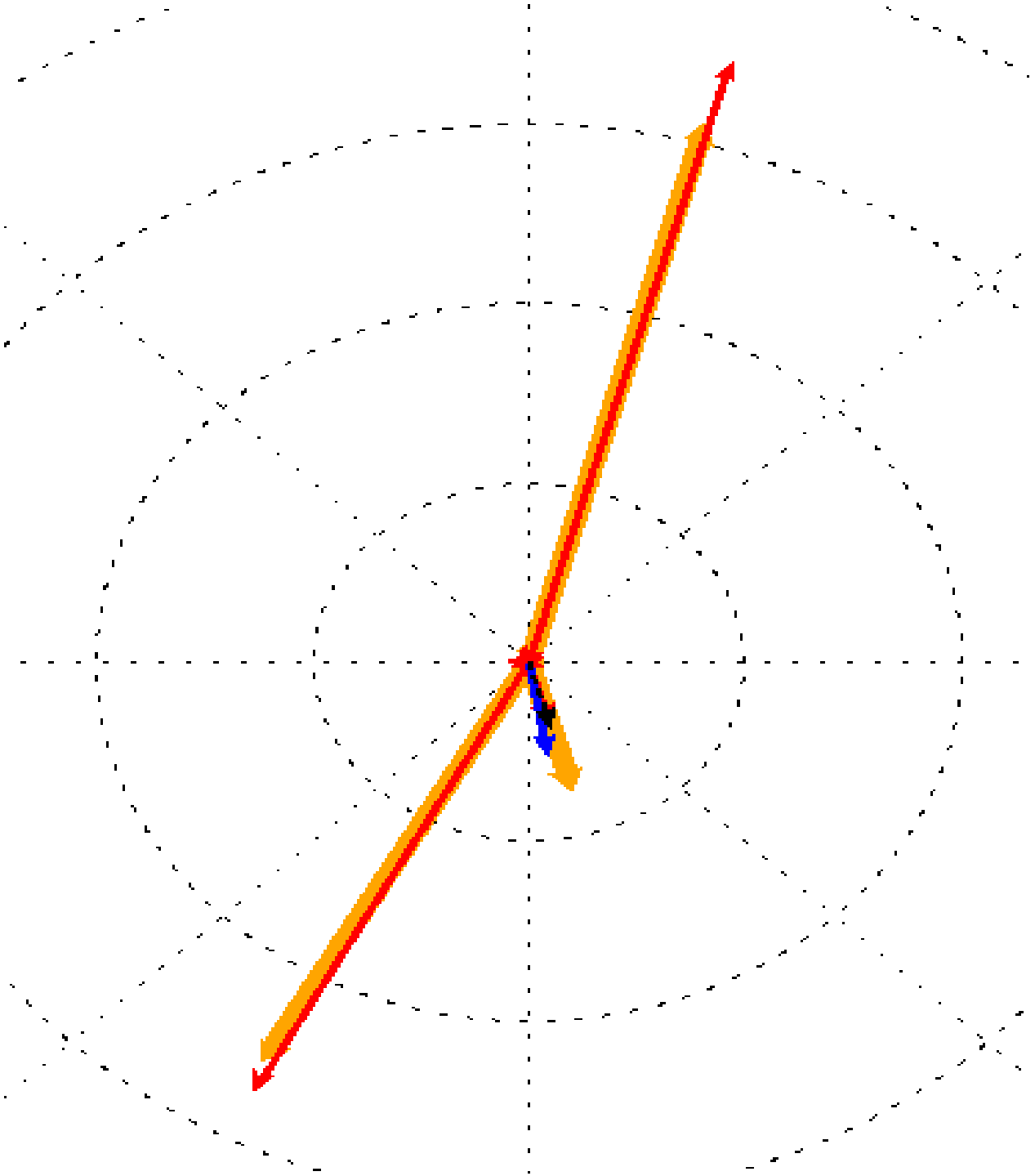
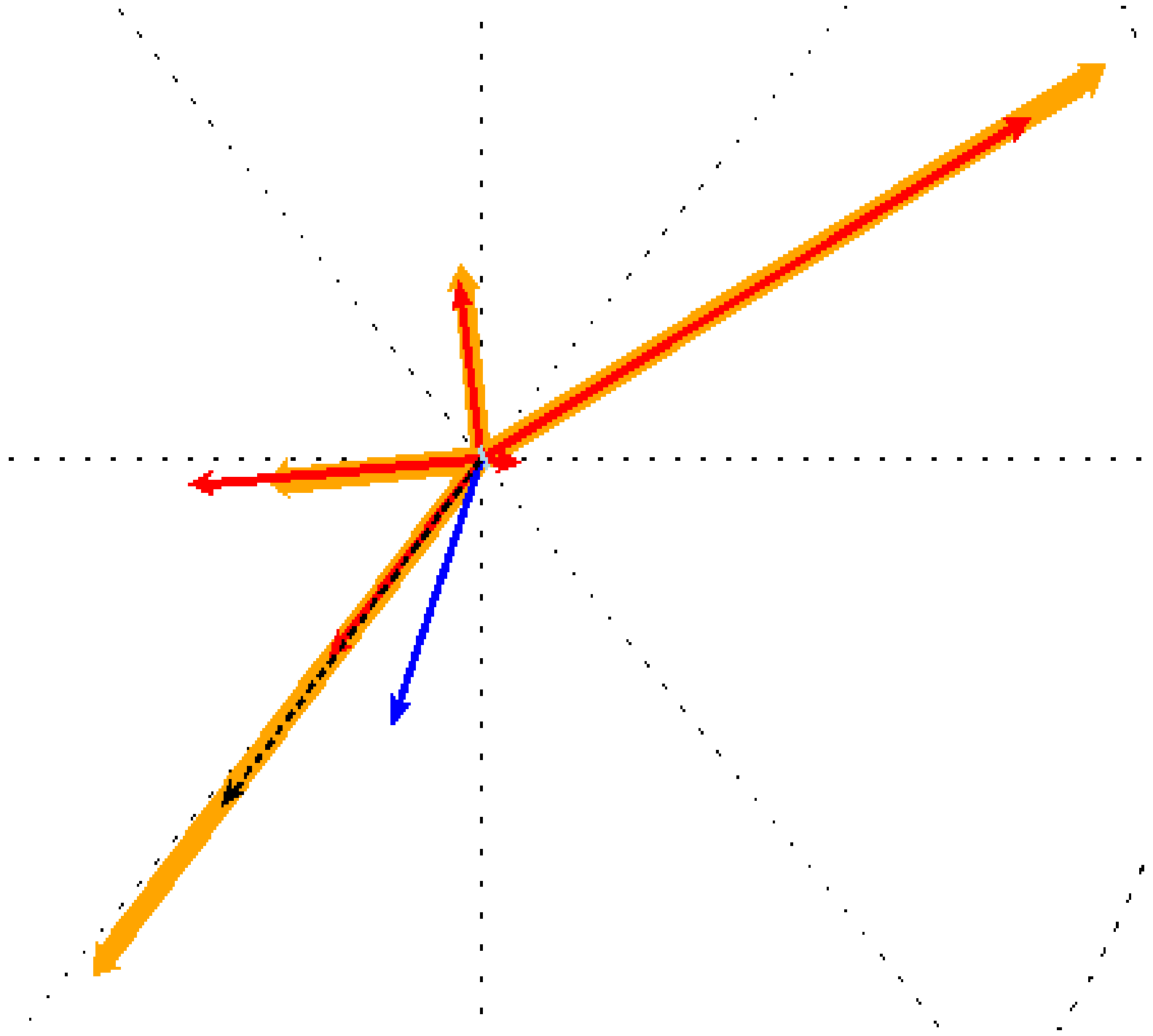
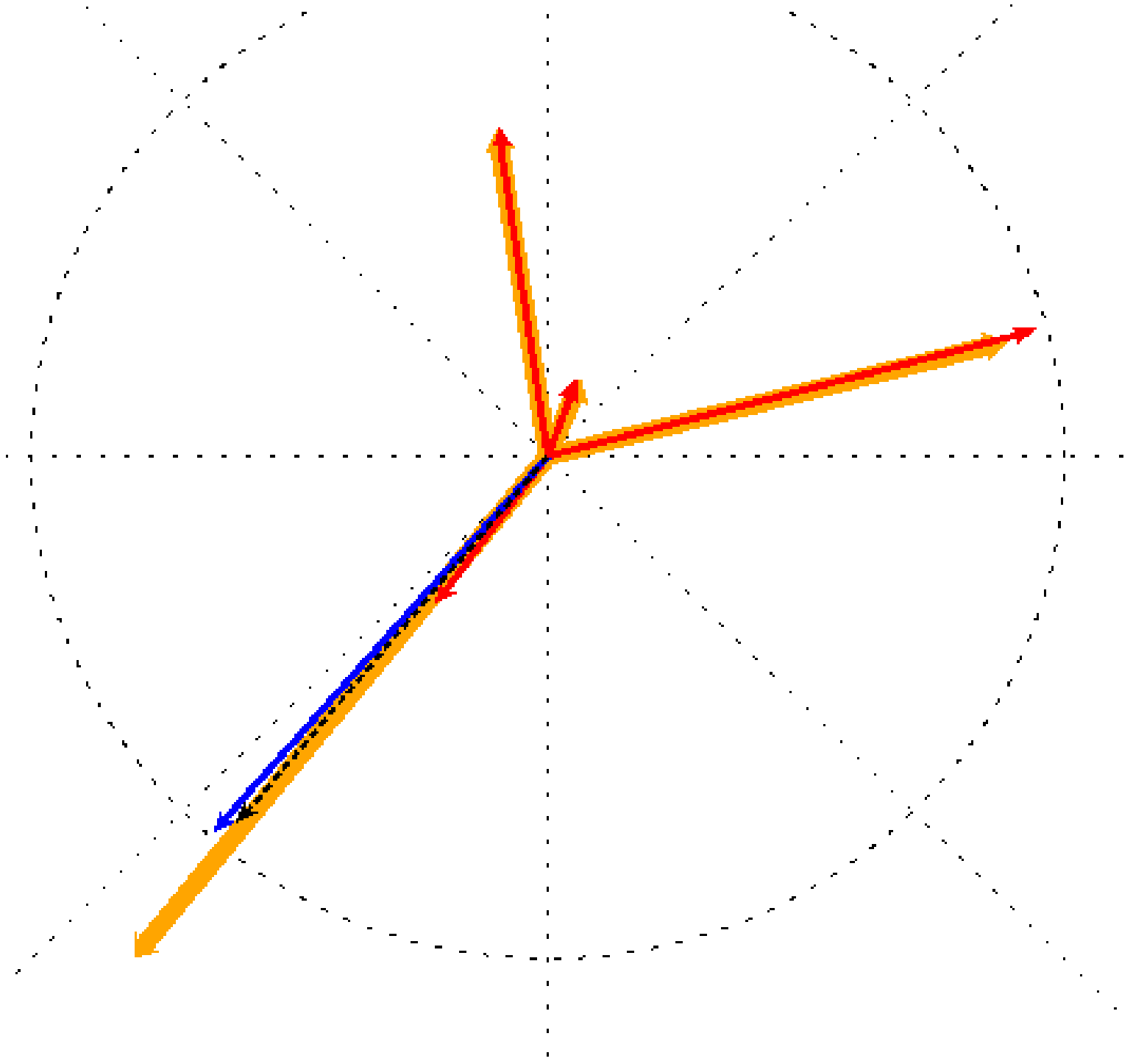
- Find closest gen, rec jets to buggy generator particle
- Calculate Etgen-ETrec
- Plot vs. Gen Particle ET



of bugs vs. ptHat

- Bug is dominant contributor for low ptHat
- high ptHat dominated by resolution effects?



A few event displays from buggy events

- Orange = generated jets
- Red = reco'd jets
- Blue = reco'd MET
- Black dashed lines = ET of buggy particles